AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (previously presented) A method for managing a flash memory in which a mapping area, a data area and an alternative area are arranged sequentially therein, the method comprising:

if changing of data of a data block recorded at an original address in the data area is requested, recording the data block having changed data in the alternative area and recording mapping information representing an address of the data block recorded in the alternative area in the mapping area; and

if changing of data of the data block recorded in the alternative area is requested, recording a data block having changed data at the original address in the data area and deleting the mapping information representing the address of the data block recorded in the alternative area from the mapping area,

wherein, if the mapping information on the data block exists in the mapping area, data is read from the data block in the alternative area, and if the mapping information on the data block does not exist in the mapping area, data is read from the data block at the original address in the data area.

2. (original) The method of claim 1, wherein the mapping information is a

logical block number of the data block.

3. (original) The method of claim 1, wherein if the changed data of the data block are recorded in the alternative area, the changed data are recorded in a temporary block of the alternative area.

4. (original) The method of claim 1, wherein if the changed data of the data block are recorded in the data area, the changed data are recorded in a location of the data area corresponding to a logical block number of the data block.

5. (currently amended) A method for writing data in a flash memory which comprises a mapping area, a data area and an alternative area arranged sequentially therein, the data area having an original address, in which changed data of a data block recorded in an alternative area are recorded, the alternative area, in which the changed data of the data block recorded at the original address in the data area are recorded, and the mapping area containing mapping information representing an address of the data block included in the alternative area, the method comprising:

receiving a data block write request in the flash memory;

searching mapping information on the data block to be requested to ~~write~~ be written in the mapping area;

if there is no mapping information representing the address of the data block to be requested to ~~write~~be written, writing the data block to be requested to ~~write~~ be written in the alternative area and recording the mapping information representing the address of the data block in the mapping area; and

if there is mapping information representing the address of the data block to be requested to ~~write~~be written, writing the data block to be requested to ~~write~~ be written in the original address of the data area and deleting the mapping information representing the address of the data block to be requested to ~~write~~ be written from the mapping area,

wherein, if the mapping information on the data block exists in the mapping area, data is read from the data block in the alternative area, and if the mapping information on the data block does not exist in the mapping area, data is read from the data block at the original address in the data area.

6. (currently amended) A method for reading data from a flash memory which comprises a mapping area, data area and an alternative area arranged sequentially therein, the data area having an original address, in which changed data of a data block recorded in an alternative area are recorded, the alternative area, in which the changed data of the data block recorded at the original address in the data area are recorded, and the mapping area containing mapping information representing an address of the data block included in the alternative area, the method comprising:

receiving a data block read request in the flash memory;

searching mapping information on the data block to be requested to be read in the mapping area;

if there is no mapping information representing the address of the data block to be requested to be read, reading the data block to be requested to be read from the original address of the data area; and

if there is mapping information representing the address of the data block to be requested to be read, reading the data block to be requested to be read from the alternative area,

wherein, if the mapping information on the data block exists in the mapping area, data is read from the data block in the alternative area, and if the mapping information on the data block does not exist in the mapping area, data is read from the data block at the original address in the data area.

7. (previously presented) A flash memory comprising:

a data area having an original address, in which changed data of a data block are recorded when changing of data of a data block recorded in an alternative area is requested;

the alternative area in which the changed data of the data block are recorded when changing of data of the data block recorded in the original address of the data area is requested; and

a mapping area in which a mapping table containing mapping information representing an address of the data block recorded in the alternative area is recorded and from which the

mapping information representing the address of the data block is removed when the changed data of the data block are recorded in the original address of the data area,

wherein the mapping area, the data area and the alternative area are arranged sequentially, and

wherein, if the mapping information on the data block exists in the mapping area, data is read from the data block in the alternative area, and if the mapping information on the data block does not exist in the mapping area, data is read from the data block at the original address in the data area.

8. (original) The memory of claim 7, further comprising a master block containing information on the data area, the alternative area, and the mapping area.

9. (original) The memory of claim 7, wherein a physical block number of the data block existing in the data area corresponds to a logical block number on a one-to-one basis.

10. (previously presented) The memory of claim 7, wherein the alternative area includes a predetermined number of blocks, each of the blocks includes a predetermined number of pages, and a first mapping table is recorded in a first page of a first block,

wherein, if contents of the first mapping table are changed, the changed contents are stored in a second table that is recorded in a second page of the first block, and

if all of the pages of the first block have a mapping table recorded therein, a subsequent mapping table is recorded in a first page of a second block.

Claims 11-22 (canceled).